FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO

NRG Texas Power LLC

AUTHORIZING THE OPERATION OF

San Jacinto Steam Electric Station Electric Services

LOCATED AT

Harris County, Texas

Latitude 29° 41' 43" Longitude 95° 2' 28"

Regulated Entity Number: RN100542901

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site, emission units and affected source listed in this permit. Operations of the site, emission units and affected source listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site, emission units and affected source authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site, emission units and affected source.

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions: Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

- 1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

- C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
- D. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 101.302 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)
 - (iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)
 - (iv) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)
 - (v) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)
 - (vi) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit
- E. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:
 - (i) Title 30 TAC § 101.352 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)
 - (iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)
 - (iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)
 - (v) Title 30 TAC § 101.358 (relating to Emission Monitoring and Compliance Demonstration)
 - (vi) Title 30 TAC § 101.359 (relating to Reporting)
 - (vii) Title 30 TAC § 101.360 (relating to Level of Activity Certification)

- (viii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit
- F. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 101.372 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
 - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)
 - (iv) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)
 - (v) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)
 - (vi) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
- 2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
 - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
 - B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

- H. Title 30 TAC § 101.221 (relating to Operational Requirements)
- I. Title 30 TAC § 101.222 (relating to Demonstrations)
- J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
- 3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
 - A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
 - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(1)(E)
 - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
 - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
 - (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
 - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period

greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

- (3) Records of all observations shall be maintained.
- (4)Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in

30 TAC § 111.111(a)(1)(F) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.
- B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
 - (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC \S 111.111(a)(7)(A), complying with 30 TAC \S 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC \S 122.146:
 - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the air emission source or enclosed facility is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be

conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC \S 111.111(a)(7)(B) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- C. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC \S 111.111(a)(8)(A), complying with 30 TAC \S 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC \S 122.146:
 - (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
 - (2) Records of all observations shall be maintained.
 - (3)Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
 - (4) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)

- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance. the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader
- D. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- E. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- F. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- G. Outdoor burning, as stated in 30 TAC § 111.201, shall not be authorized unless the following requirements are satisfied:
 - (i) Title 30 TAC § 111.205 (relating to Exception for Fire Training)
 - (ii) Title 30 TAC § 111.207 (relating to Exception for Recreation, Ceremony, Cooking, and Warmth)

- (iii) Title 30 TAC § 111.209 (relating to Exception for Disposal Fires)
- (iv) Title 30 TAC § 111.219 (relating to General Requirements for Allowable Outdoor Burning)
- (v) Title 30 TAC § 111.221 (relating to Responsibility for Consequences of Outdoor Burning)
- 4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: "Storage of Volatile Organic Compounds," the permit holder shall comply with the requirements of 30 TAC § 115.112(d)(1).
- 5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
 - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
 - B. Title 40 CFR § 60.8 (relating to Performance Tests)
 - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - D. Title 40 CFR § 60.12 (relating to Circumvention)
 - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - F. Title 40 CFR § 60.14 (relating to Modification)
 - G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

Additional Monitoring Requirements

- 6. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:
 - A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
 - B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum

- limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
- C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
- D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.
- 7. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

- 8. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
 - A. Are incorporated by reference into this permit as applicable requirements
 - B. Shall be located with this operating permit
 - C. Are not eligible for a permit shield

- 9. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
- The permit holder shall maintain records to demonstrate compliance with any 10. emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

- 11. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
- 12. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:
 - A. The permit holder shall comply with the compliance schedules and submit written notification to the Executive Director as required in 30 TAC Chapter 117, Subchapter H, Division 1:
 - (i) For electric utilities in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9120
- 13. Use of Emission Credits to comply with applicable requirements:
 - A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117

- (iii) Offsets for Title 30 TAC Chapter 116
- B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)(2)
 - (ii) The emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 1
 - (iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)(2)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122
- 14. Use of Discrete Emission Credits to comply with the applicable requirements:
 - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
 - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
 - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

- (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
- 15. The permit holder may comply with the following 30 TAC Chapter 101, Subchapter H, Division 5 (System Cap Trading) Requirements for an electric generating facility participating in a system cap:
 - A. Title 30 TAC § 101.383 (relating to General Provisions)
 - B. Title 30 TAC § 101.385 (relating to Recordkeeping and Reporting)

Protection of Stratospheric Ozone

- 16. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone.
 - A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.
 - B. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 § 82.270 and the applicable Part 82 Appendices.

Temporary Fuel Shortages (30 TAC § 112.15)

- 17. The permit holder shall comply with the following 30 TAC Chapter 112 requirements:
 - A. Title 30 TAC § 112.15 (relating to Temporary Fuel Shortage Plan Filing Requirements)
 - B. Title 30 TAC § 112.16(a), (a)(1), and (a)(2)(B) (c) (relating to Temporary Fuel Shortage Plan Operating Requirements)
 - C. Title 30 TAC § 112.17 (relating to Temporary Fuel Shortage Plan Notification Procedures)
 - D. Title 30 TAC § 112.18 (relating to Temporary Fuel Shortage Plan Reporting Requirements)

Permit Location

18. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

19. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Acid Rain Permit Requirements

20. For units GT1 and GT2 (as identified in the Certificate of Representation as units SJS1 and SJS2), located at the affected source identified by ORIS/Facility code 7325, the designated representative and the owner or operator, as applicable, shall comply with the following Acid Rain Permit requirements.

A. General Requirements

- (i) Under 30 TAC § 122.12(1) and 40 CFR Part 72, the Acid Rain Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP) and have an independent public comment process which may be separate from, or combined with the FOP.
- (ii) The owner and operator shall comply with the requirements of 40 CFR Part 72 and 40 CFR Part 76. Any noncompliance with the Acid Rain Permit will be considered noncompliance with the FOP and may be subject to enforcement action.
- (iii) The owners and operators of the affected source shall operate the source and the unit in compliance with the requirements of this Acid Rain Permit and all other applicable State and federal requirements.
- (iv) The owners and operators of the affected source shall comply with the General Terms and Conditions of the FOP that incorporates this Acid Rain Permit.

(v) The term for the Acid Rain permit shall commence with the issuance of the FOP that incorporates the Acid Rain permit and shall be run concurrent with the remainder of the term of the FOP. Renewal of the Acid Rain permit shall coincide with the renewal of the FOP that incorporates the Acid Rain permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring Requirements

- (i) The owners and operators, and the designated representative, of the affected source and each affected unit at the source shall comply with the monitoring requirements contained 40 CFR Part 75.
- (ii) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 and any other credible evidence shall be used to determine compliance by the affected source with the acid rain emissions limitations and emissions reduction requirements for SO₂ and NO_x under the ARP.
- (iii) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emission of other pollutants or other emissions characteristics at the unit under other applicable requirements of the FCAA Amendments (42 U.S.C. 7401, as amended November 15, 1990) and other terms and conditions of the operating permit for the source.

C. SO_2 emissions requirements

- (i) The owners and operators of each source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for SO_2 .
- (ii) As of the allowance transfer deadline the owners and operators of the affected source and each affected unit at the source shall hold, in the unit's compliance subaccount, allowances in an amount not less than the total annual emissions of SO₂ for the previous calendar year.
- (iii) Each ton of SO₂ emitted in excess of the acid rain emissions limitations for SO₂ shall constitute a separate violation of the FCAA amendments.
- (iv) An affected unit shall be subject to the requirements under (i) and (ii) of the SO₂ emissions requirements as follows:
 - (1) Starting January 1, 2000, an affected unit under 40 CFR § 72.6(a)(2); or

- (2) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR § 72.6(a)(3).
- (v) Allowances shall be held in, deducted from, or transferred into or among Allowance Tracking System accounts in accordance with the requirements of the ARP.
- (vi) An allowance shall not be deducted, for compliance with the requirements of this permit, in a calendar year before the year for which the allowance was allocated.
- (vii) An allowance allocated by the EPA Administrator or under the ARP is a limited authorization to emit SO₂ in accordance with the ARP. No provision of the ARP, Acid Rain permit application, this Acid Rain Permit, or an exemption under 40 CFR §§ 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (viii) An allowance allocated by the EPA Administrator under the ARP does not constitute a property right.

D. NO_x Emission Requirements

- (i) The owners and operators of the source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for NO_x under 40 CFR Part 76.
- E. Excess emissions requirements for SO₂ and NO_x.
 - (i) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
 - (ii) If an affected source has excess emissions in any calendar year shall, as required by 40 CFR Part 77:
 - (1) Pay, without demand, the penalty required and pay, upon demand, the interest on that penalty.
 - (2) Comply with the terms of an approved offset plan.

F. Recordkeeping and Reporting Requirements

(i) Unless otherwise provided, the owners and operators of the affected source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for

cause, at any time before the end of 5 years, in writing by the permitting authority or the EPA Administrator.

- representative for the source and each affected unit and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR § 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.
- (2) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping (rather than a five-year period cited in 30 TAC § 122.144), the 3-year period shall apply.
- (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the ARP or relied upon for compliance certification.
- (4) Copies of all documents used to complete a acid rain permit application and any other submission under the ARP or to demonstrate compliance with the requirements of the ARP.
- (ii) The designated representative of an affected source and each affected unit at the source shall submit the reports required under the ARP including those under 40 CFR Part 72, Subpart I and 40 CFR Part 75.

G. Liability

- (i) Any person who knowingly violates any requirement or prohibition of the ARP, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR §§ 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to FCAA § 113(c).
- (ii) Any person who knowingly makes a false, material statement in any record, submission, or report under the ARP shall be subject to criminal enforcement pursuant to FCAA § 113(c) and 18 U.S.C. 1001.
- (iii) No permit revision shall excuse any violation of the requirements of the ARP that occurs prior to the date that the revision takes effect.

- (iv) The affected source and each affected unit shall meet the requirements of the ARP contained in 40 CFR Parts 72 through 78.
- (v) Any provision of the ARP that applies to an affected source or the designated representative of an affected source shall also apply to the owners and operators of such source and of the affected units at the source.
- (vi) Any provision of the ARP that applies to an affected unit (including a provision applicable to the DR of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR § 72.44 (Phase II repowering extension plans) and 40 CFR § 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR §§ 75.16, 75.17, and 75.18), the owners and operators and the DR of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the DR and that is located at a source of which they are not owners or operators or the DR.
- (vii) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or DR of such source or unit, shall be a separate violation of the FCAA Amendments.
- H. Effect on other authorities. No provision of the ARP, an acid rain permit application, an acid rain permit, or an exemption under 40 CFR §§ 72.7 or 72.8 shall be construed as:
 - (i) Except as expressly provided in Title IV of the FCAA Amendments, exempting or excluding the owners and operators and, to the extent applicable, the DR of an affected source or affected unit from compliance with any other provision of the FCAA Amendments, including the provisions of Title I of the FCAA Amendments relating to applicable National Ambient Air Quality Standards or State Implementation Plans.
 - (ii) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the FCAA Amendments.
 - (iii) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law.

- (iv) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (v) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.
- I. The number of SO₂ allowances allocated by the EPA in 40 CFR Part 73 is enforceable only by the EPA Administrator.

Clean Air Interstate Rule Permit Requirements

21. For units GT1 and GT2 (as identified in the Certificate of Representation as units SJS1 and SJS2), located at the site identified by ORIS/Facility code 7325, the designated representative and the owner or operator, as applicable, shall comply with the following Clean Air Interstate Rule (CAIR) Permit requirements. Until approval of the Texas CAIR SIP by EPA, the permit holder shall comply with the equivalent requirements of 40 CFR Part 97 in place of the referenced 40 CFR Part 96 requirements in the Texas CAIR permit and 30 TAC Chapter 122 requirements.

A. General Requirements

- (i) Under 30 TAC § 122.420(b) and 40 CFR §§ 96.120(b) and 96.220(b) the CAIR Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP).
- (ii) The owners and operators of the CAIR NO_x and the CAIR SO_2 source shall operate the source and the unit in compliance with the requirements of this CAIR permit and all other applicable State and federal requirements.
- (iii) The owners and operators of the CAIR NO_x and the CAIR SO_2 source shall comply with the General Terms and Conditions of the FOP that incorporates this CAIR Permit.
- (iv) The term for the initial CAIR permit shall commence with the issuance of the revision containing the CAIR permit and shall be the remaining term for the FOP that incorporates the CAIR permit. Renewal of the initial CAIR permit shall coincide with the renewal of the FOP that incorporates the CAIR permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring and Reporting Requirements

(i) The owners and operators, and the CAIR designated representative, of the CAIR NO_x source and each CAIR NO_x unit at the source shall

- comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HH.
- (ii) The owners and operators, and the CAIR designated representative, of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HHH.
- (iii) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH and any other credible evidence shall be used to determine compliance by the CAIR NO_x source with the CAIR NO_x emissions limitation.
- (iv) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH and any other credible evidence shall be used to determine compliance by the CAIR SO₂ source with the CAIR SO₂ emissions limitation.

C. NO_x emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 40 CFR § 96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x units at the source, as determined in accordance the requirements 40 CFR Part 96, Subpart HH.
- (ii) A CAIR NO_x unit shall be subject to the requirements of paragraph C.(i) of this CAIR Permit starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.170(b)(1), (2), or (5).
- (iii) A CAIR NO_x allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (iv) CAIR NO_x allowances shall be held in, deducted from or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FF or Subpart GG.
- (v) A CAIR NO_x allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption

- under 40 CFR § 96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR NO_x allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FF or Subpart GG, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x unit's compliance account is incorporated automatically in this CAIR permit.

D. NO_x excess emissions requirement

- (i) If a CAIR NO_x source emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation, the owners and operators of the source and each CAIR NO_x unit at the source shall surrender the CAIR NO_x allowances required for deduction under 40 CFR § 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable State law.

E. SO_2 emissions requirements

- (i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, CAIR SO₂ allowances available for compliance deductions for the control period under 40 CFR § 96.254(a) and (b) in an amount not less than the tons of total sulfur dioxides emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance the requirements 40 CFR Part 96, Subpart HHH.
- (ii) A CAIR SO₂ unit shall be subject to the requirements of paragraph E.(i) of this CAIR Permit starting on the later of January 1, 2010, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.270(b)(1), (2), or (5).
- (iii) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (iv) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in

- accordance with the requirements of 40 CFR Part 96, Subpart FFF or Subpart GGG.
- (v) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.
- (vi) A CAIR SO₂ allowance does not constitute a property right.
- (vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or Subpart GGG, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ unit's compliance account is incorporated automatically in this CAIR permit.

F. SO₂ excess emissions requirements

- (i) If a CAIR SO₂ source emits sulfur dioxides during any control period in excess of the CAIR SO₂ emissions limitation, the owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 40 CFR § 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable State law.

G. Recordkeeping and Reporting Requirements

- (i) Unless otherwise provided, the owners and operators of the CAIR NO_x source and each CAIR NO_x unit at the source and the CAIR SO₂ source and each CAIR SO₂ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.
 - (1) The certificate of representation under 40 CFR §§ 96.113 and 96.213 for the CAIR NO_x designated representative for the source and each CAIR NO_x unit and the CAIR SO₂ designated representative for the source and each CAIR SO₂ unit at the source and all documents that demonstrate the

truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR §§ 96.113 and 96.213 changing the CAIR designated representative.

- (2) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH and Subpart HHH, provided that to the extent that these subparts provide for a 3-year period for recordkeeping, the 3-year period shall apply.
- (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program and CAIR SO₂ Trading Program or relied upon for compliance determinations.
- (4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x Annual Trading Program and CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program and CAIR SO₂ Trading Program.
- (ii) The CAIR designated representative of a CAIR NO_x source and each CAIR NO_x unit at the source and a CAIR SO₂ source and each CAIR SO₂ unit at the source shall submit the reports required under the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program including those under 40 CFR Part 96, Subpart HH and Subpart HHH.
- H. The CAIR NO_x source and each CAIR NO_x unit shall meet the requirements of the CAIR NO_x Annual Trading Program contained in 40 CFR Part 96, Subparts AA through II.
- I. The CAIR SO₂ source and each CAIR SO₂ unit shall meet the requirements of the CAIR SO₂ Trading Program contained in 40 CFR Part 96, Subparts AAA through III.
- J. Any provision of the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program that applies to a CAIR NO_x source or CAIR SO₂ source or the CAIR designated representative of a CAIR NO_x source or CAIR SO₂ source shall also apply to the owners and operators of such source and the units at the source.
- K. Any provision of the CAIR NO_x Annual Trading Program and the CAIR SO₂ Trading Program that applies to a CAIR NO_x unit or CAIR SO₂ unit or

- the CAIR designated representative of a CAIR NO_x unit or CAIR SO₂ unit shall also apply to the owners and operators of such unit.
- L. No provision of the CAIR NO_x Annual Trading Program, CAIR SO_2 Trading Program, a CAIR permit application, a CAIR permit, or an exemption under 40 CFR §§ 96.105 or 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source or CAIR NO_x unit or a CAIR SO_2 source or CAIR SO_2 unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

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Applicable Requirements Summary	31

Note: A "none" entry may be noted for some emission sources in this permit's "Applicable Requirements Summary" under the heading of "Monitoring and Testing Requirements" and/or "Recordkeeping Requirements" and/or "Reporting Requirements." Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
A-103	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
A-104	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
B-201	-201 STORAGE N/A TANKS/VESSELS		R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
DG-1	SOLVENT DEGREASING MACHINES	N/A	R5412-1	30 TAC Chapter 115, Degreasing Processes	No changing attributes.
GRPCTLOV	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	CT1-LOV, CT2- LOV	R1111-2	30 TAC Chapter 111, Visible Emissions	No changing attributes.
GRPGT	STATIONARY TURBINES	GT1, GT2	R701-1	30 TAC Chapter 117, Utility Electric Generation	FUEL TYPE = Firing fuel oil only.
GRPGT	STATIONARY TURBINES	GT1, GT2	R701-2	30 TAC Chapter 117, Utility Electric Generation	FUEL TYPE = Firing natural gas only.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRPGT	STATIONARY TURBINES	GT1, GT2	60GG-1	40 CFR Part 60, Subpart GG	FUEL SUPPLY = Stationary gas turbine is supplied its fuel from a bulk storage tank., NOX CONTROL METHOD = Water or steam injection only., NOX MONITORING METHOD = Continuous monitoring system for water or steam injection., FUEL TYPE FIRED = Liquid fuel, FUEL MONITORING SCHEDULE = Monitoring and recording the sulfur content once per unit operating day.
GRPGT	STATIONARY TURBINES	GT1, GT2	60GG-2	40 CFR Part 60, Subpart GG	FUEL SUPPLY = Stationary gas turbine is supplied its fuel without intermediate bulk storage., NOX CONTROL METHOD = No NOX control method is used., NOX MONITORING METHOD = No continuous monitoring system is used., FUEL TYPE FIRED = Natural gas meeting the definition in § 60.331(u)., FUEL MONITORING SCHEDULE = Fuel meets the definition of natural gas in 40 CFR § 60.331(u) and is not monitored.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
GRPHRSG	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	HRSG1, HRSG2	60Da-1	40 CFR Part 60, Subpart Da	No changing attributes.
GRPS	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	SJS1, SJS2	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
S1	VOLATILE ORGANIC COMPOUND WATER SEPARATORS	N/A	R131-1	30 TAC Chapter 115, Water Separation	No changing attributes.
SJSUNLOAD	LOADING/UNLOADING OPERATIONS	N/A	R5212-1	30 TAC Chapter 115, Loading and Unloading of VOC	No changing attributes.

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
A-103	EU	R5112-1	voc	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
A-104	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
B-201	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
DG-1	EU	R5412-1	voc	30 TAC Chapter 115, Degreasing Processes	\$ 115.412(1) [G]§ 115.412(1)(A) § 115.412(1)(C) § 115.412(1)(D) [G]§ 115.412(1)(F) § 115.417(1)	Cold solvent cleaning. No person shall own or operate a system utilizing a VOC for the cold solvent cleaning of objects without the controls listed in §115.412(1)(A)-(F).	Monitoring	None	None
GRPCTLOV	ЕР	R1111-2	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(B) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPGT	EU	R701-1	NOx	30 TAC Chapter 117, Utility Electric Generation	\$ 117.1210(a)(3) [G]\$ 117.1203(c) \$ 117.1210(c)(3) \$ 117.1220(a) \$ 117.1220(b) [G]\$ 117.1220(c) \$ 117.1220(d) \$ 117.1220(e) \$ 117.1220(i) \$ 117.1220(j) \$ 117.1220(j) \$ 117.1220(k) \$ 117.1220(l) \$ 117.1220(m) \$ 117.1240(l) \$ 117.1240(o) \$ 117.1240(o) \$ 117.1240(o)	owner or operator of each stationary gas turbine (including duct burners used in turbine exhaust ducts), shall ensure that emissions of nitrogen oxides (NO _x) do not exceed 0.032, in lb/MMBtu heat	[G]§ 117.1220(e)(1) § 117.1220(h) § 117.1220(k) § 117.1235(a) § 117.1235(a)(1) § 117.1235(a)(3) § 117.1235(c) § 117.1235(d)	§ 117.1220(f) § 117.1245(a) [G]§ 117.1245(e)	[G]§ 117.1203(c) § 117.1220(g) § 117.1235(b) § 117.1245(b) § 117.1245(b)(2) [G]§ 117.1245(c) § 117.1245(d) § 117.1245(d) § 117.1245(d)(2) § 117.1245(d)(3) § 117.1245(d)(4) § 117.1245(d)(5) [G]§ 117.1254(b) § 117.1254(c) § 117.1254(c)
GRPGT	EU	R701-1	со	30 TAC Chapter 117, Utility Electric Generation	§ 117.1210(b)(1) § 117.1210(b) § 117.1210(b)(1)(B)	subject to the NO _x emission specifications specified in subsection (a) of this section, carbon monoxide (CO) emissions in excess of 400 parts per	\$ 117.1235(a) \$ 117.1235(a)(1) \$ 117.1235(a)(3) \$ 117.1235(c) \$ 117.1235(d) \$ 117.1235(d)(5) \$ 117.1240(b) \$ 117.1240(d) [G]\$ 117.1240(d)(2) \$ 117.1240(i)	§ 117.1245(a) [G]§ 117.1245(e)	§ 117.1235(b) § 117.1245(b) § 117.1245(b)(1) § 117.1245(b)(2) [G]§ 117.1245(c) § 117.1245(d) § 117.1245(d)(2) § 117.1245(d)(3) § 117.1245(d)(4) § 117.1245(d)(5) § 117.1256

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPGT	EU	R701-2	NOx	30 TAC Chapter 117, Utility Electric Generation	\$ 117.1210(a)(3) [G]\$ 117.1203(c) \$ 117.1210(c)(3) \$ 117.1220(a) \$ 117.1220(b) [G]\$ 117.1220(c) \$ 117.1220(d) \$ 117.1220(e) \$ 117.1220(i) \$ 117.1220(j) \$ 117.1220(j) \$ 117.1220(k) \$ 117.1220(l) \$ 117.1220(m) \$ 117.1240(l) \$ 117.1240(o) \$ 117.1240(o) \$ 117.1240(o)	stationary gas turbine (including duct burners used in turbine exhaust ducts), shall ensure that emissions of nitrogen oxides (NO _x) do not exceed 0.032, in lb/MMBtu heat	[G]§ 117.1220(e)(1) § 117.1220(h) § 117.1220(k) § 117.1235(a) § 117.1235(a)(1) § 117.1235(a)(3) § 117.1235(c) § 117.1235(d)	§ 117.1220(f) § 117.1245(a) [G]§ 117.1245(e)	[G]§ 117.1203(c) § 117.1220(g) § 117.1235(b) § 117.1245(b) § 117.1245(b)(1) § 117.1245(b)(2) [G]§ 117.1245(c) § 117.1245(d) § 117.1245(d)(2) § 117.1245(d)(3) § 117.1245(d)(4) § 117.1245(d)(5) [G]§ 117.1254(b) § 117.1254(c) § 117.1254(c)
GRPGT	EU	R701-2	СО	30 TAC Chapter 117, Utility Electric Generation	§ 117.1210(b)(1) § 117.1210(b) § 117.1210(b)(1)(B)	subject to the NO _x emission specifications specified in subsection (a) of this section, carbon monoxide (CO) emissions in excess of 400 parts per	\$ 117.1235(a) \$ 117.1235(a)(1) \$ 117.1235(a)(3) \$ 117.1235(c) \$ 117.1235(d) \$ 117.1235(d)(5) \$ 117.1240(b) \$ 117.1240(d) [G]\$ 117.1240(d)(2) \$ 117.1240(i)	§ 117.1245(a) [G]§ 117.1245(e)	\$ 117.1235(b) \$ 117.1245(b) \$ 117.1245(b)(1) \$ 117.1245(b)(2) [G]\$ 117.1245(c) \$ 117.1245(d) \$ 117.1245(d)(2) \$ 117.1245(d)(3) \$ 117.1245(d)(4) \$ 117.1245(d)(5) \$ 117.1245(d)(5)

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPGT	EU	60GG-1	SO ₂	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	\$ 60.334(h) \$ 60.334(h)(1) \$ 60.334(i) \$ 60.334(j)(1) \$ 60.334(j)(2)(i) \$ 60.334(j)(2)(ii) \$ 60.335(b)(10) \$ 60.335(b)(10)(i)	§ 60.334(i) § 60.334(i)(1)	None
GRPGT	EU	60GG-1	NOx	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3) § 60.332(f) § 60.332(i)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	\$ 60.334(a) \$ 60.334(g) \$ 60.334(j) \$ 60.334(j)(1) [G]\$ 60.335(a) \$ 60.335(b)(2) \$ 60.335(b)(3) \$ 60.335(b)(4)	§ 60.334(a) § 60.334(g)	§ 60.334(j) § 60.334(j)(3) § 60.334(j)(5)
GRPGT	EU	60GG-2	SO ₂	40 CFR Part 60, Subpart GG	§ 60.333(b)	No stationary gas turbine shall burn any fuel which contains sulfur in excess of 0.8% by weight.	§ 60.334(h) [G]§ 60.334(h)(3)	None	None
GRPGT	EU	60GG-2	NOx	40 CFR Part 60, Subpart GG	§ 60.332(a)(1) § 60.332(a)(3)	No owner or operator shall discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of the amount as determined from the specified equation.	[G]§ 60.335(a) § 60.335(b)(2) § 60.335(b)(3)	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
GRPHRSG	EU	60Da-1	SO2, NOx, PM(OP)	40 CFR Part 60, Subpart Da	§ 60.40Da(a) The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart Da	The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart Da	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart Da	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart Da	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart Da
GRPS	EP	R1111-1	OPACITY	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
S1	EU	R131-1	voc	30 TAC Chapter 115, Water Separation	§ 115.137(a)(2) [G]§ 115.132(a)(4)	Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure of VOC < .5 psia obtained from any equipment is exempt from \$115.132(a).	[G]§ 115.135(a) § 115.136(a)(1) § 115.136(a)(3) § 115.136(a)(4)	§ 115.136(a)(1) § 115.136(a)(3) § 115.136(a)(4)	None
SJSUNLOAD	EU	R5212-1	voc	30 TAC Chapter 115, Loading and Unloading of VOC	\$ 115.217(a)(1) \$ 115.212(a)(2) [G]§ 115.212(a)(7) \$ 115.214(a)(1)(B) \$ 115.214(a)(1)(D) \$ 115.214(a)(1)(D)(i)	Vapor pressure (at land- based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 0.5 psia is exempt from the requirements of this division, except as specified.	\$ 115.214(a)(1)(A) \$ 115.214(a)(1)(A)(i) \$ 115.215 \$ 115.215(4)	§ 115.216 § 115.216(2) § 115.216(3)(B)	None

Additional Monitoring Requirements	
Compliance Assurance Monitoring Summary	3 7
Periodic Monitoring Summary	38

CAM Summary

Unit/Group/Process Information	
ID No.: GRPGT	
Control Device ID No.: W1	Control Device Type: Steam/Water Injection System
Control Device ID No.: W2	Control Device Type: Steam/Water Injection System
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 117, Utility Electric Generation	SOP Index No.: R701-1
Pollutant: NO _X	Main Standard: § 117.1210(a)(3)
Monitoring Information	
Indicator: NOx concentration	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: 364.5 lb/hr NOx when firing t	fuel oil

CAM Text: Use a continuous emission monitoring system (CEMS) to measure and record the concentration of nitrogen oxides and either oxygen or carbon dioxide in the exhaust stream of the control device. The CEMS shall be operated in accordance with the monitoring requirements of 40 CFR § 60.13 and the performance specifications of 40 CFR Part 60, Appendix B. NOx Emissions shall be corrected/calculated in units of the underlying applicable emission limitation (grams per horsepower-hour, pounds per MMBtu, pounds per hour). Deviation Limit: The maximum nitrogen oxides rate or concentration (specified in units of the underlying applicable requirement) is the corresponding nitrogen oxides limit associated with the emission limitation in the underlying applicable requirement.

Periodic Monitoring Summary

Unit/Group/Process Information

ID No.: DG-1

Control Device ID No.: N/A Control Device Type: N/A

Applicable Regulatory Requirement

Name: 30 TAC Chapter 115, Degreasing SOP Index No.: R5412-1

Processes

Pollutant: VOC Main Standard: § 115.412(1)

Monitoring Information

Indicator: Visual Inspection

Minimum Frequency: Monthly

Averaging Period: n/a

Deviation Limit: Any monitoring data which indicates that the cold cleaner is not in compliance with the applicable requirements of 30 TAC 115.412(1)(A)-(F) shall be considered and reported as a deviation.

Periodic Monitoring Text: Inspect equipment and record data monthly to ensure compliance with any applicable requirements in § 115.412(1)(A)-(F). Any monitoring data which indicates that the cold cleaner is not in compliance with the applicable requirements of § 115.412(1)(A)-(F) shall be considered and reported as a deviation.

Periodic Monitoring Summary

Unit/Group/Process Information

ID No.: GRPCTLOV

Control Device ID No.: N/A | Control Device Type: N/A

Applicable Regulatory Requirement

Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111-2

Pollutant: OPACITY Main Standard: § 111.111(a)(1)(B)

Monitoring Information

Indicator: Visible Emissions

Minimum Frequency: Annually

Averaging Period: N/A

Deviation Limit: It shall be considered a deviation if the opacity exceeds 20% averaged

over a six-minute period.

Periodic Monitoring Text: Visible emissions observations shall be made and recorded. The source must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observation cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. Documentation of all observations shall be maintained. If visible emissions are observed, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.

Periodic Monitoring Summary

Unit/Group/Process Information

ID No.: GRPS

Control Device ID No.: N/A Control Device Type: N/A

Applicable Regulatory Requirement

Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111-1

Pollutant: OPACITY | Main Standard: § 111.111(a)(1)(C)

Monitoring Information

Indicator: Fuel Type

Minimum Frequency: Annually or at any time an alternate fuel is used

Averaging Period: n/a

Deviation Limit: Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.

Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, for a period greater than or equal to 24 consecutive hours it shall be considered and reported as a deviation or the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are observed. Any time an alternate fuel is fired for a period of greater than 7 consecutive days then visible emissions observations will be conducted no less than once per week. Documentation of all observations shall be maintained. If visible emissions are present during the firing of an alternate fuel, the permit holder shall either list this occurrence as a deviation or the permit holder may determine the opacity consistent with Test Method 9. Any opacity readings that are above the opacity limit from the underlying applicable requirement shall be reported as a deviation.

	Permit Shield	
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Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination	
ID No.	Group/Inclusive Units			
A-103	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.	
A-104	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.	
B-201	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.	
B-202	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank has storage capacity less than 1,000 gallons.	
B-202	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.	
B-203	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank has storage capacity less than 1,000 gallons.	
B-203	N/A	40 CFR Part 60, Subpart Kb	Tank capacity is less than 19,800 gallons.	
GRPCTLOV	CT1-LOV, CT2-LOV	30 TAC Chapter 115, Vent Gas Controls	Process vent does not emit VOC.	
NGFUG	N/A	40 CFR Part 61, Subpart J	Fugitive piping components do not operate in benzene service as defined in 40 CFR § 61.111.	
NGFUG	N/A	40 CFR Part 61, Subpart V	These sources do not operate in volatile hazardous air pollutant (VHAP) service.	

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
NGFUG	N/A		Fugitive piping components do not operate in organic hazardous air pollutant service 300 hours or more during a calendar year within a source subject to the provisions of a specific subpart in 40 CFR Part 63 that references 40 CFR Part 63, Subpart H.

New Source Review Authorization References	
New Source Review Authorization References	1 5
New Source Review Authorization References by Emission Unit	16

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits				
PSD Permit No.: PSDTX807	Issuance Date: 09/23/2013			
Title 30 TAC Chapter 116 Permits, 8 (Other Than Permits By Rule, PSD Area.	Special Permits, and Other Authorizations Permits, or NA Permits) for the Application			
Authorization No.: 21587	Issuance Date: 09/23/2013			
Permits By Rule (30 TAC Chapter 1	106) for the Application Area			
Number: 106.263	Version No./Date: 11/01/2001			
Number: 5	Version No./Date: 06/07/1996			
Number: 8	Version No./Date: 06/07/1996			
Number: 14	Version No./Date: 06/07/1996			
Number: 39	Version No./Date: 06/07/1996			
Number: 40	Version No./Date: 06/07/1996			
Number: 51	Version No./Date: 07/20/1992			
Number: 51	Version No./Date: 06/07/1996			
Number: 53	Version No./Date: 06/07/1996			
Number: 61	Version No./Date: 07/20/1992			
Number: 61	Version No./Date: 06/07/1996			
Number: 102	Version No./Date: 06/07/1996			
Number: 103	Version No./Date: 06/07/1996			
Number: 107	Version No./Date: 06/07/1996			

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
A-103	LUBE OIL TANK	51/06/07/1996
A-104	LUBE OIL TANK	51/06/07/1996
B-201	WASTEWATER TANK	51/06/07/1996
B-202	USED OIL TANK	51/06/07/1996
B-203	OILY SLUDGE TANK	51/06/07/1996
CT1-LOV	UNIT 1 TURBINE LUBE OIL VENT	21587, PSDTX807
CT2-LOV	UNIT 2 TURBINE LUBE OIL VENT	21587, PSDTX807
DG-1	DEGREASER	107/06/07/1996
GT1	UNIT 1 COMBUSTION TURBINE GENERATOR (CTG)	21587, PSDTX807
GT2	UNIT 2 COMBUSTION TURBINE GENERATOR	21587, PSDTX807
HRSG1	UNIT 1 HEAT RECOVERY STEAM GENERATOR (HRSG)	21587, PSDTX807
HRSG2	UNIT 2 HEAT RECOVERY STEAM GENERATOR (HRSG)	21587, PSDTX807
NGFUG	NATURAL GAS PIPING FUGITIVES	21587, PSDTX807
S1	OILY WASTE TREATMENT SYSTEM SEPARATOR	61/07/20/1992
SJS1	UNIT 1 CTG/HRSG STACK	21587, PSDTX807
SJS2	UNIT 2 CTG/HRSG	21587, PSDTX807
SJSUNLOAD	SAN JACINTO UNLOADING OPEARATIONS	51/06/07/1996

	Appendix A	
Acronym List		48

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACEM	actual cubic feet per minute
	Acid Rain Program
ANT	
	Beaumont/Port Arthur (nonattainment area)
CD	control device
COMS	continuous opacity monitoring system
CVS	
D/FW	Dallas/Fort Worth (nonattainment area)
DR	
ElP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
	grandfathered
gr/100 scf	grains per 100 standard cubic feet
	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
	hydrogen sulfide
	identification number
lb/hr	pound(s) per hour
MMBtu/hr	pound(s) per hour Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
	nonattainment
	not applicable
	National Allowance Data Base
	nitrogen oxides
	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
	particulate matter
ppmv	parts per million by volume
PSD	prevention of significant deterioration
	sulfur dioxide
	Texas Commission on Environmental Quality
•	total suspended particulate
	true vapor pressure
Y O C	voiathe organic compound

	Appendix B	
Major NSR Summary Table	••••	 50

Major NSR Summary Table

Permit Numbe	r: 21587, PSD-TX-807					Issuance Date: 9/23/2013	
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission	Rates	Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
SJS1 (9)	80 MWe Gas Turbine-	NO _X		439.4	3, 9*, 10, 12, 16	3, 9*, 10, 12, 14, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	СО		830.0	9*, 10, 12, 16	9*, 10, 12, 14, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀		50.9	3**, 8**, 9*, **	3**, 8**, 9*, **, 14, 15, 16, 18**	3**, 9*, **
		VOC		38.8		14, 15, 16, 18	
		SO_2		18.6	3, 11, 12	3, 11, 12, 14, 15, 16, 18	3, 19
SJS2 (9)	80 MWe Gas Turbine-	NO_X		439.4	3, 9*, 10, 12, 16	3, 9*, 10, 12, 14, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	CO		830.0	9*, 10, 12, 16	5, 9*, 10, 12, 14, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀		50.9	3**, 8**, 9*, **	3**, 8**, 9*, **, 14, 15, 16, 18**	3**, 9*, **
		VOC		38.8		14, 15, 16, 18	
		SO_2		18.6	3, 11, 12	3, 11, 12, 14, 15, 16, 18	3, 19
Case I: Turbines	firing fuel oil and duct bu	rners firing natural gas	S.				1
SJS1 (6)(7)(8)	JS1 (6)(7)(8) 80 MWe Gas Turbine- GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO _X	364.5		3, 9*, 10, 12, 16	3, 9*, 10, 12, 14, 15, 16, 18	3, 9*, 10, 19
		СО	563.0		9*, 10, 12, 16	9*, 10, 12, 14, 15, 16, 18	9*, 10, 19
		PM/PM ₁₀	19.5		3**, 8**, 9*, **	3**, 8**, 9*, **, 14, 15, 16, 18**	3**, 9*, **
		VOC	12.5			14, 15, 16, 18	
		SO ₂	235.3		3, 11, 12	3, 11, 12, 14, 15, 16, 18	3, 19
SJS1 (6)(7)(8)	80 MWe Gas Turbine-	NO_X	364.5		3, 9*, 10, 12, 16	3, 9*, 10, 12, 14, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	СО	563.0		9*, 10, 12, 16	9*, 10, 12, 14, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀	19.5		3**, 8**, 9*, **	3**, 8**, 9*, **, 14, 15, 16, 18**	3**, 9*, **
		VOC	12.5			14, 15, 16, 18	
		SO_2	235.3		3, 11, 12	3, 11, 12, 14, 15, 16, 18	3, 19
Case II: Turbine	s firing fuel oil and duct b	urners unfired.	1	1	1	,	1
SJS1 (6)(7)(8)	80 MWe Gas Turbine-	NO _X	320.0		3, 9*, 10, 12, 16	3, 9*, 10, 12, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	СО	401.0		9*, 10, 12, 16	9*, 10, 12, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀	15.0		8**	8**, 15, 16, 18**	
		VOC	5.5			15, 16, 18	
		SO ₂	235.0		3, 11, 12	3, 11, 12, 15, 16, 18	19
SJS2 (6)(7)(8)	80 MWe Gas Turbine-	NO_X	320.0		3, 9*, 10, 12, 16	3, 9*, 10, 12, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	СО	401.0		9*, 10, 12, 16	9*, 10, 12, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀	15.0		8**	8**, 15, 16, 18**	
		VOC	5.5			15, 16, 18	
		SO_2	235.0		3, 11, 12	3, 11, 12, 15, 16, 18	19

Permit Numbe	r: 21587, PSD-TX-807					Issuance Date: 9/23/2013	
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements	
			lb/hr	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
Case III: Turbin	es firing natural gas and d	uct burners unfired.					
SJS1 (6)(7)(8)	80 MWe Gas Turbine-	NO _X	62.0		3, 9*, 10, 12, 16	3, 9*, 10, 12, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	СО	296.0		9*, 10, 12, 16	9*, 10, 12, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀	7.0		8**	8**, 15, 16, 18**	
		VOC	2.2			15, 16, 18	
		SO_2	0.7		3, 11, 12	3, 11, 12, 15, 16, 18	19
SJS2 (6)(7)(8)	80 MWe Gas Turbine-	NO_X	62.0		3, 9*, 10, 12, 16	3, 9*, 10, 12, 14, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	СО	296.0		9*, 10, 12, 16	9*, 10, 12, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀	7.0		8**	8**, 15, 16, 18**	
		VOC	2.2			15, 16, 18	
		SO ₂	0.7		3, 11, 12	3, 11, 12, 15, 16, 18	19
Case IV: Turbin	es firing natural gas and d	uct burners firing natur	ral gas.		•		
SJS1 (6)(7)(8)	80 MWe Gas Turbine-	NO _X	106.5		3, 9*, 10, 12, 16	3, 9*, 10, 12, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr Duct Burner	СО	496.0		9*, 10, 12, 16	9*, 10, 12, 15, 16, 18	9*, 10, 19
		PM/PM ₁₀	11.5		3**, 8**, 9*, **	3**, 8**, 9*, **, 15, 16, 18**	3**, 9*, **
		VOC	9.2			15, 16, 18	
		SO_2	1.0		3, 11, 12	3, 11, 12, 15, 16, 18	3, 19
SJS2 (6)(7)(8)	80 MWe Gas Turbine-	NO _X	106.5		3, 9*, 10, 12, 16	3, 9*, 10, 12, 15, 16, 18	3, 9*, 10, 19
	GE Frame 7EA and 550 MMBtu/hr	СО	496.0		9*, 10, 12, 16	9*, 10, 12, 15, 16, 18	9*, 10, 19
	Duct Burner	PM/PM ₁₀	11.5		3**, 8**, 9*, **	3**, 8**, 9*, **, 15, 16, 18**	3**, 9*, **
		VOC	9.2			15, 16, 18	
		SO_2	1.0		3, 11, 12	3, 11, 12, , 15, 16, 18	3, 19
MSSFUG (10)	Miscellaneous	NO _X	< 0.01	< 0.01		15, 18	
	Maintenance Activities	СО	< 0.01	< 0.01		15, 18	
		PM	1.06	0.42		15, 18	
		PM ₁₀	1.06	0.42		15, 18	
		PM _{2.5}	1.06	0.42		15, 18	
		VOC	6.21	0.89		15, 16, 18	
NGFUG	Site-wide Fugitives	VOC	0.19	0.83			

Notes:

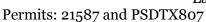
- (1) Emission point identification either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) Exempt Solvent Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
 - VOC volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x total oxides of nitrogen
 - SO₂ sulfur dioxide
 - PM total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented PM_{10} total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
 - $PM_{2.5}$ total particulate matter equal to or less than 2.5 microns in diameter
 - CO carbon monoxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period. Annual emissions are based on 70°F ambient temperature with 125 hours of fuel oil firing and 8,635 hours of natural gas firing per year, with duct burners in continuous operation firing natural gas.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Maximum hourly emissions are based on 20°F ambient temperature.
- (7) For each pollutant whose emissions during planned MSS activities are measured using a CEMS, during any clock hour that includes one or more minutes of planned MSS activities, the pollutant's hourly emission limits that apply during planned MSS activities shall apply during that clock hour.
- (8) The tpy emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
- (9) The lb/hr emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
- (10) MSSFUG emission rates apply to all fuel firing scenarios.
- * Performance test performed and reported at time of permit initial issuance.
- ** Opacity is used as an indicator of PM emissions, but the opacity limits in the permit are not directly correlated to the PM limit in the MAERT; therefore, non-compliance with the opacity limit does not constitute non-compliance with the PM limit.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY AIR QUALITY PERMIT



Authorizing the Continued Operation of San Jacinto Steam Electric Station Located at La Porte, Harris County, Texas

Latitude 29° 41′ 43″ Longitude 95° 2′ 28″



Issuance Date : September 23, 2013

Renewal Date: September 23, 2023

For the Commission

- 1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
- 2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
- 3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
- 4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
- 5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

Revised (10/12)

- 6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
- 7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
- 8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
- 9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
- 10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
- 11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
- 12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
- 13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
- 14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

Revised (10/12)

Special Conditions

Permit Numbers 21587 and PSDTX807

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in that attached table. Compliance with the annual emission limits and operating schedules is based on a rolling 12-month period (i.e., updated monthly) rather than the calendar year.

This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities listed in Attachment A, Attachment B, or the maximum allowable emission rates table (MAERT) attached to this permit. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that this permit authorizes to be performed. Attachment B identifies the planned maintenance activities that are non-ILE planned maintenance activities that this permit authorizes to be performed.

It does not include planned MSS activities associated with the following facilities at the site as these MSS activities are authorized under Standard Exemption (SE), Permit by Rule (PBR) by Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106), or are authorized as a De Minimis source by 30 TAC § 116.119. These lists are not intended to be all inclusive and can be altered at the site without modifications to this permit.

Facility	Authorization
Natural Gas-Fired Comfort Heating System	SE 3 (6/7/96)
	30 TAC §106.102
Bench Scale Laboratory Equipment	SE 34 (6/7/96) 30 TAC § 106.122
Welding, Soldering, and Brazing	SE 39 (6/7/96) 30 TAC § 106.227
Routine Facility Maintenance Including Painting and Abrasive Blasting	SE 102 (6/7/96) 30 TAC § 106.263
Buffing, Polishing, Cutting, Drilling, Sawing, Machining, and Grinding	SE 40 (6/7/96) 30 TAC § 106.265
Refrigeration System Maintenance and Repair	SE 103 (6/7/96) 30 TAC § 106.373
Equipment Fueling	SE 14 (6/7/96) 30 TAC § 106.412

Facility	Authorization
Remote Reservoir and Cold Solvent Cleaners	SE 107 (6/7/96) 30 TAC § 106.454
Diesel Fuel Storage Tanks, Water Treatment Chemical Storage Tanks, Lube Oil Storage Tanks and Loading and Unloading	SE 051 (6/7/96) 30 TAC § 106.472 SE 053 (6/7/96) 30 TAC § 106.473
Emergency Diesel Electric Generators, Fire Water Pumps and Portable Engines	SE 005 (6/7/96) 30 TAC § 106.511
Plant Waste Water Treatment	SE 061 (6/7/96) 30 TAC § 106.532

Source or Activity	Authorization
Glove Box Abrasive Blasting	30 TAC § 116.119(a)(1)
Office Cleaning Activities	30 TAC § 116.119(a)(1)
Grounds Maintenance and Landscaping	30 TAC § 116.119(a)(1)
Pesticide and Insecticide Use and Fumigation	30 TAC § 116.119(a)(1)
Application of Lubricants Without Aerosol Propellants	30 TAC § 116.119(a)(1)
Wet Abrasive Blast Cleaning	30 TAC § 116.119(a)(1)
Aerosol Product Use – Less Than 4 Cans/64 oz/day	30 TAC § 116.119(a)(1)
Aerosol Can Puncturing, Recycling and Disposal	30 TAC § 116.119(a)(1)
Aqueous Cleaning Solutions	30 TAC § 116.119(a)(1)
Manual Application of Cleaning or Stripping Solutions or Coatings	30 TAC § 116.119(a)(1)

2. A copy of this permit shall be kept at the plant site and made immediately available at the request of personnel from the Texas Commission on Environmental Quality (TCEQ), EPA, or any local air pollution control agency having jurisdiction. Excluding fugitive emission sources, the holder of this permit shall clearly label all equipment at the property that has the potential of emitting air contaminants. Permitted emission points shall be clearly labeled corresponding to the emission point numbering on the MAERT.

Emission Standards, Plant Design, Work Practices, and Fuel Specifications

3. The facilities operated under this permit shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for Stationary Gas Turbines and Electric Utility Steam

Generating Units in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subparts A, Da, and GG. If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

- 4. During operation of the gas turbines on natural gas, the average hourly concentration in parts per million by volume dry (ppmvd) corrected to 15 percent oxygen (O₂) in the stack gases:
 - A. Shall not exceed 18 ppmvd for nitrogen oxides (NO_x) while the duct burners are in operation; and
 - B. Shall not exceed 15 ppmvd for NO_x and while the duct burners are not in operation.
 - C. Shall not exceed 132 ppmvd for carbon monoxide (CO) as allowed by 30 TAC § 117.1210(b).

The above limits shall apply except during periods of planned MSS activities. In addition, the above limits shall not apply when it is necessary, due to mechanical constraints, to operate the gas turbines at a partial load level at which emissions will rise above these values. These periods shall not exceed 12-hours per event.

- 5. The duct burners shall be limited to firing natural gas at a maximum firing rate of no more than 550 million Btu per hour (MMBtu/hr), high heating value (HHV); and emissions shall not exceed 0.09 lb $NO_x/MMBtu$ heat input (HHV) and 0.08 lb CO/MMBtu heat input (HHV) when the duct burners operate at greater than 50 percent load.
- 6. The CO mass emissions limits in the MAERT attached to this permit that apply during planned MSS activities constitute alternative case-specific specifications as allowed in 30 TAC § 117.1225 for the CO concentration limits in 30 TAC § 117.1210 during planned MSS activities.
- 7. Fuel fired in the gas turbines and duct burners is limited to the following: natural gas containing no more than 7 parts per million by weight (ppmw) sulfur; and distillate fuel oil containing no more than 0.18 percent sulfur by weight. The use of distillate fuel oil fired in each turbine is limited to 125 hours per year. Use of any other fuel shall require modification to this permit. (09/13)
- 8. The opacity shall not exceed 5 percent averaged over a six-minute period from each stack. During MSS activities, the opacity shall not exceed 20 percent. Each determination shall be made by first observing for visible emissions while each facility is in operation. There is no requirement to conduct an observation during MSS activities. Observations shall be made at least 15 feet and no more than 0.25

miles from the emission point. If visible emissions are observed from an emission point, then the opacity shall be determined and documented within 24 hours for that emission point using 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water shall not be included in determining compliance with this condition. Observations shall be performed and recorded quarterly. If the opacity exceeds 5 percent during normal operations or 20 percent during MSS activities, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation.

Initial Determination of Compliance

- Upon request of the TCEQ Houston Regional office, the holder of this permit shall 9. perform stack sampling and other testing as required to initially establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the turbines and duct burners. Sampling must be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with EPA Test Methods 201A and 202 for the concentration of particulate matter less than 10 microns in diameter (PM₁₀) with the allowance for ambient particulates (i.e., subtracting out particulates entering the turbine), Test Method 8 for sulfur dioxide (SO₂), Test Method 9 for opacity (consisting of 30 sixminute readings as provided in 40 CFR § 60.11[b]), Test Method 10 for the concentration of CO, and Test Method 20 for the concentrations of NO_x and O₂ or equivalent methods. Fuel sampling using the methods and procedures of 40 CFR 60.335(d) may be conducted in lieu of stack sampling for SO₂. If fuel sampling is used, compliance with New Source Performance Standards (NSPS), Subpart GG, SO₂ limits shall be based on 100 percent conversion of the sulfur in the fuel to SO₂. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operation at his expense.
 - A. The TCEQ Houston Regional Office shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Method for determining turbine load both before and after sampling.

The purpose of the pretest meeting is to review and formalize the necessary sampling and testing procedures, to provide the proper data forms for

recording pertinent data, to identify each operating parameter which is significant to maintaining emission compliance, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in this permit condition or any TCEQ or EPA sampling procedures shall be made available to the TCEQ at or prior to the pretest meeting. The TCEQ Houston Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in Paragraph B of this condition shall be submitted to the TCEQ Air Permits Division. Test waivers and alternate/equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the TCEQ Air Permits Division in Austin. Any equivalent test procedures or any test waivers must be approved by the TCEQ prior to the date required in Special Condition No. 9E for conducting the tests.

- B. Air emissions from the gas turbine to be tested for at full load, while the duct burner is fired at full load include (but are not limited to) NO_x, O₂, CO, PM₁₀, and opacity. Testing shall be accomplished while firing natural gas and fuel oil as specified in Special Condition No. 7.
- C. The NO_x, O₂, and CO from the turbine alone while firing natural gas and fuel oil shall be sampled concurrently and at the minimum point in the normal operating range, 80 percent capacity, and the peak capacity for the atmospheric conditions occurring during the test. The NO_x and CO concentrations shall be corrected and reported according to Special Condition No. 4. This testing will be used to demonstrate initial compliance with Special Conditions Nos. 1 and 4.
- D. Duct burner NO_x and CO emissions shall be determined by sampling upstream and downstream of the duct burner while firing at the maximum feasible rate with the turbine operating at maximum firing rate for the ambient conditions occurring during the test. The duct burner NO_x and CO emission rates shall be calculated in accordance with equations provided in EPA Test Method 19 to demonstrate compliance with Special Condition No. 5.
- E. Sampling of each turbine shall occur within 60 days after achieving the maximum production rate at which the turbine will be operated for each fuel specified in Special Condition No. 7 but no later than 180 days after initial operation of the turbine on each fuel. Additional sampling shall occur as may be required by the TCEQ.
- F. Within 60 days after the completion of the testing and sampling required herein, three copies of the sampling report shall be distributed as follows:
 - One copy to the Harris County Pollution Control Office, Pasadena.

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> One copy to the TCEQ Houston Regional Office. One copy to the EPA Region 6 Office in Dallas.

G. Initial sampling of the turbines has been completed and the date was verified prior to the amendment of this permit.

Continuous Demonstration of Compliance

- 10. The holder of this permit shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) to:
 - A. Measure and record the concentrations of NO_x, CO, and O₂ in each cogeneration unit exhaust stack. The NO_x and CO concentrations shall be corrected and reported according to Special Condition No. 4.
 - B. The CEMS required in Special Condition No. 10A shall comply with the following requirements:
 - (1) The NOx and O₂ CEMS shall meet all applicable requirements of 40 CFR Part 75 Appendices A and B, and the CO CEMS shall meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 or 4A. All CEMS shall meet the applicable data analysis, reporting, and periodic quality-assurance (QA) requirements of 40 CFR Part 75 and 40 CFR Part 60.
 - (2) Any failure of a quarterly monitor QA check and any unscheduled CEMS downtime shall be reported in the reports required by Special Condition No. 19 to the TCEQ Houston Regional Office with the necessary corrective action taken. Supplemental stack concentration measurements may be required at the discretion of the TCEQ Regional Director.
- 11. The holder of this permit shall monitor the sulfur content of the permitted fuels pursuant to 40 CFR Part 60, Subpart GG.

Compliance Condition

12. After the demonstration of initial compliance required in Special Condition No. 9, the CEMS required in Special Condition No. 10 and the fuel quality monitoring required in Special Condition No. 11 shall constitute the methods for demonstrating continuous compliance with the standards. The CEMS, mass emission calculations, and the fuel quality monitoring data will be used to evaluate

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compliance with the applicable emission limitations of Special Conditions Nos. 1, 3, 4, and 5.

Planned Maintenance Startup and Shutdown

- 13. The holder of this permit shall minimize emissions during planned MSS activities by operating the facility and associated air pollution control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility.
- 14. Emissions during planned startup and shutdown activities will be minimized by limiting the duration of operation in planned startup and shutdown mode as follows:
 - A. A planned startup of the electric generating facilities (EGFs) with EPN Nos. SJS1 and SJS2 is defined as the period that begins with the ignition of fuel in the combustion system as detected using a flame scanner and ends when the turbine transfers to Premix- Steady-State mode. A planned startup for that EGF is limited to 180 minutes.
 - B. A planned shutdown of the EGFs with EPN Nos. SJS1 and SJS2 is defined as the period that begins when the turbine transfers from Premix-Steady-State mode to Lean-Lean Negative mode and ends when fuel is no longer in the combustion system as detected using a flame scanner. A planned shutdown for the EGFs is limited to 180 minutes.
- 15. Compliance with the emissions limits for planned MSS activities identified in the MAERT attached to this permit may be demonstrated as follows.
 - A. For each pollutant emitted during ILE planned maintenance activities, the permit holder shall annually confirm the continued validity of the estimated potential to emit represented in the permit application for all ILE planned maintenance activities. The total emissions from all ILE planned maintenance activities (See Attachment A) shall be considered to be no more than the estimated potential to emit for those activities that are represented in the permit application.
 - B. For each pollutant emitted during non-ILE planned maintenance activities (See Attachment B) whose emissions are measured using a CEMS, as per Special Condition No. 16A, the permit holder shall do the following for each calendar month.
 - (1) Compare the pollutant's short-term (hourly) emissions during planned maintenance activities as measured by the CEMS to the applicable short-term planned MSS emissions limit in the MAERT.

- C. For each pollutant emitted during non-ILE planned maintenance activities (See Attachment B) whose emissions occur through a stack, but are not measured using CEMS as per Special Condition No. 16A, the permit holder shall do the following for each calendar month.
 - (1) Determine the total emissions of the pollutant through the stack that result from such non-ILE planned maintenance activities in accordance with Special Condition No. 16B.
- D. For each pollutant emitted during non-ILE planned maintenance activities (See Attachment B) whose emissions do not occur through a stack, the permit holder shall do the following for each calendar month.
 - (1) Determine the total emissions of the pollutant from such non-ILE planned maintenance activities in accordance with Special Condition No. 16B.
 - (2) Once monthly emissions have been determined in accordance with Special Condition No. 15D(1) for 12 months after the MSS permit amendment has been issued, the permit holder shall compare the sum of the rolling 12-month emissions for the pollutant and the annual potential to emit for the pollutant from all ILE planned MSS activities (as referenced in Special Condition No. 15A) to the annual emissions limit for the pollutant in the MAERT.
- 16. The permit holder shall determine the emissions during planned MSS activities for use in Special Condition No. 15B, 15C and 15D as follows:
 - A. For each pollutant whose emissions during normal facility operations are measured with a CEMS that has been certified to measure the pollutant's emissions over the entire range of a planned MSS activity, the permit holder shall measure the emissions of the pollutant during the planned MSS activity using the CEMS.
 - B. For each pollutant not described in Special Condition No. 16A, the permit holder shall calculate the pollutant's emissions during all occurrences of each type of planned MSS activity for each calendar month using the frequency of the planned MSS activity identified in work orders or equivalent records and the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application. In lieu of using the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application to calculate such emissions, the permit holder may determine the emissions of the pollutant during the planned MSS activity using an appropriate method, including but not limited to, any of the methods

described in paragraphs 1 through 4 below, provided that the permit holder maintains appropriate records supporting such determination:

- (1) Use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations.
- (2) Use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
- (3) Use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
- (4) Use of parametric monitoring system (PEMS) data applicable to the facility.
- 17. With the exception of the emission limits in the MAERT attached to this permit, the permit conditions relating to planned MSS activities do not become effective until 180 days after issuance of the permit amendment that added such conditions.

Recordkeeping Requirements

- 18. The following information shall be made and maintained by the holder of this permit for a period of five years and shall be made available on request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:
 - A. Average hourly NO_x, CO, and O₂, concentrations monitored pursuant to Special Condition No. 10.
 - B. Calculated emissions of NO_x and CO in pounds per hour using the EPA Test Method 19, the CEMS data, and vendor fuel Btu analysis. The hourly values shall be cumulatively added during each hour of the month to show total NO_x and CO for each month.
 - C. The results of all fuel sampling conducted pursuant to Special Condition No. 11;
 - D. The results of all stack tests conducted pursuant to Special Condition No. 9;

- E. Records of hours of operation and the firing rate of the turbines and duct burners; and
- F. A raw data file of CEMS data, including calibration checks and adjustments and maintenance performed on these systems or devices in a permanent form suitable for inspection.
- G. Startup/Shutdown records shall include the following:
 - (1) Type and quantity of fuel used; and
 - (2) Emissions from the event; and
 - (3) Date, time and duration of the event.
- H. Pursuant to Special Condition No. 15A, the annual confirmation shall be kept with examples of the method of data reduction including units, conversion factors, assumptions, and the basis of the assumptions in accordance with the original manner as represented in the permit amendment application dated January 4, 2011.
- I. Monthly maintenance records pursuant to Special Condition No. 16B shall include the following:
 - (1) Type of activity;
 - (2) Emissions from the activity; and
 - (3) Date, time, and duration of the activity.
- J. Records of opacity observations pursuant to Special Condition No. 8.

Reporting Requirements

- 19. The holder of this permit shall submit to the TCEQ Houston Regional Office and the TCEQ Air Permits Division in Austin quarterly reports as described in 40 CFR § 60.7. Such reports are required for each emission unit which is required to be continuously monitored pursuant to Special Conditions Nos. 10 and 11. In addition to the information specified in 40 CFR § 60.7(c), each report shall contain:
 - A. Hours of operation of the facility, a summary of the periods of noncomplying emissions, CEMS system percent reliability, and CEMS downtime by cause.
 - B. All failed periodic monitor QA checks required by Special Condition No. 10 and the corrective action taken. The reporting of excess emissions required

Special Conditions Permit Numbers 21587 and PSDTX807 Page 11

by this condition does not relieve the holder of this permit from the notification requirements of emission events required by Title 30 Texas Administrative Code §§ 101.201 and 101.211.

- 20. For the purposes of reporting pursuant to Special Condition No. 19, noncomplying emissions or conditions are defined as follows:
 - A. Each one-hour period of turbine operation, except during start-up or shutdown not to exceed three-hours or during part load operation not to exceed 12-hours, during which the average emissions of NO_x or CO, as measured and recorded by the CEMS, exceed the emission limitation of Special Condition Nos. 1 or 4.
 - B. Noncomplying annual emissions of NO_x are defined as a rolling 12-month period during which the 12-month cumulative emissions of NO_x exceed the annual limits in the table referenced in Special Condition No. 1.
 - C. Noncomplying emissions of SO₂ are defined as any sample of fuel which is found to contain sulfur which indicated exceedance of the requirements of Special Condition No. 7, based on 100 percent conversion of the sulfur in the fuel to SO₂.

Dated: September 23, 2013

Attachment A

Permit Numbers 21587 and PSDTX807 Inherently Low Emitting (ILE) Planned Maintenance Activities

		Emissions							
Planned Maintenance Activities	NO _x	СО	VOC	PM	SO_2/H_2S	NH ₃ / Urea	Exempt Solvent		
Water-based washing			X		1120	Orca	X		
Miscellaneous particulate filter maintenance ¹				X					
Management of sludge from pits, ponds, sumps, and water conveyances ²			X						
Organic chemical usage			X	X			X		
Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges CEMS, and PEMS.	X	X	X						
Turbine washing – unit online ³				X					
Small equipment and fugitive component repair/replacement in VOC service ⁴			X						
Gaseous Fuel Venting - Lines < 100 feet long ⁵			X						

Notes:

- 1. Includes, but is not limited to, baghouse filters, process-related building air filters, and combustion turbine air intake filters.
- 2. Includes, but is not limited to, management by vacuum truck/dewatering of materials in open pits and ponds, and sumps, tanks and other closed or open vessels. Materials managed include water and sludge mixtures containing miscellaneous VOCs such as diesel, lube oil, and other waste oils.
- 3. Involves use of water only
- 4. Includes, but is not limited to, (i) repair/replacement of pumps, compressors, valves, pipes, flanges, transport lines, filters and screens in natural gas, fuel oil, diesel oil, ammonia, lube oil, and gasoline service and (ii) vehicle and mobile equipment maintenance that may involve small VOC emissions, such as oil changes, transmission service, and hydraulic system service.
- 5. Includes, but is not limited to, venting prior to unit startup, lockout-tagout maintenance, pipeline pigging, and meter proving.

Dated: September 23, 2013

Attachment B

Permit Numbers 21587 and PSDTX807 Non-Inherently Low Emitting (ILE) Planned Maintenance Activities

Planned Maintenance					Emissi	ons		
Activities	EPN	NOx	СО	VOC	PM	SO ₂ /	NH ₃ /	Exempt
Activities		NOx	CO	VOC	PWI	H_2S	Urea	Solvent
Combustion Optimization and Maintenance Reliability Testing ^{1, 2}	SJS1 SJS2	X	X	X	X	X		
Gaseous Fuel Venting - Lines > 100 feet long ³	MSSFUG			X				

Notes:

- 1. Includes, but is not limited to, (i) leak and operability checks (e.g., turbine overspeed tests, troubleshooting), (ii) balancing, and (iii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances.
- 2. Emissions associated with this activity are no higher than the maximum hourly emission rate occurring during startup or shutdown. Hourly emissions from these activities will be subject to the hourly emission limit for MSS activities from gas turbines listed on the MAERT.
- 3. Includes, but is not limited to, venting prior to pipeline pigging, and meter proving.

Dated: September 23, 2013

Permit Numbers 21587 and PSDTX807

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point	Source Name (2)	Air Contaminant	Emissio	on Rates
No. (1)	Source Name (2)	Name (3)	lbs/hour	TPY (4)
SJS1 (9)	80 MWe Gas Turbine- GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO _x		439.4
(9)		СО		830.0
	Burner	PM/PM ₁₀		50.9
		VOC		38.8
		SO_2		18.6
SJS2 (9)	80 MWe Gas Turbine- GE Frame 7EA and	NO _x		439.4
(9)	550 MMBtu/hr Duct Burner	СО		830.0
		PM/PM ₁₀		50.9
		VOC		38.8
		SO_2		18.6
Case I: Turbines firing	g fuel oil and duct burners	firing natural gas.		
SJS1 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO _x	364.5	
(0)(/)(0)		СО	563.0	
		PM/PM ₁₀	19.5	
		VOC	12.5	
		SO_2	235.3	
SJS2 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and	NO _x	364.5	
	550 MMBtu/hr Duct Burner	СО	563.0	
	Daniel	PM/PM ₁₀	19.5	
		VOC	12.5	

Emission Point	Course Nome (a)	Air Contaminant	Emissio	n Rates
No. (1)	Source Name (2)	Name (3)	lbs/hour	TPY (4)
		SO_2	235.3	
Case II: Turbines firir	ng fuel oil and duct burners	unfired.		
SJS1 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and	NO _x	320.0	
(0)(/)(0)	550 MMBtu/hr Duct Burner	СО	401.0	
	Burner	PM/PM ₁₀	15.0	
		VOC	5.5	
		SO_2	235.0	
SJS2 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and	NO _x	320.0	
(0)(/)(0)	550 MMBtu/hr Duct Burner	СО	401.0	
		PM/PM ₁₀	15.0	
		VOC	5.5	
			235.0	
Case III: Turbines firi	ng natural gas and duct bu	rners unfired.		
SJS1 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO _x	62.0	
(0)(/)(0)		СО	296.0	
		PM/PM ₁₀	7.0	
		VOC	2.2	
		SO ₂	0.7	
SJS2 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and	NO _x	62.0	
	550 MMBtu/hr Duct Burner	СО	296.0	
	Surio	PM/PM ₁₀	7.0	
		VOC	2.2	
		SO_2	0.7	

Emission Point	Source Name (2)	Air Contaminant	Emissio	n Rates
No. (1)	Source Name (2)	Name (3)	lbs/hour	TPY (4)
Case IV: Turbines firi	ng natural gas and duct bu	rners firing natural gas.		
SJS1 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and	NO _x	106.5	
(0)(/)(0)	550 MMBtu/hr Duct Burner	СО	496.0	
	Burner	PM/PM ₁₀	11.5	
		VOC	9.2	
		SO ₂	1.0	
SJS2 (6)(7)(8)	80 MWe Gas Turbine- GE Frame 7EA and 550 MMBtu/hr Duct Burner	NO _x	106.5	
		СО	496.0	
		PM/PM ₁₀	11.5	
		VOC	9.2	
		SO_2	1.0	
MSSFUG(10)	Miscellaneous Maintenance Activities	NO _x	<0.01	<0.01
		СО	<0.01	<0.01
		PM	1.06	0.42
		PM_{10}	1.06	0.42
		$PM_{2.5}$	1.06	0.42
		VOC	6.21	0.89
NGFUG	Site-wide Fugitives	VOC	0.19	0.83

⁽¹⁾ Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as

represented

 PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented

PM_{2.5} total particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period. Annual emissions are based on 70°F ambient temperature with125 hours of fuel oil firing and 8,635 hours of natural gas firing per year, with duct burners in continuous operation firing natural gas.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Maximum hourly emissions are based on 20°F ambient temperature.
- (7) For each pollutant whose emissions during planned MSS activities are measured using a CEMS, during any clock hour that includes one or more minutes of planned MSS activities, the pollutant's hourly emission limits that apply during planned MSS activities shall apply during that clock hour.
- (8) The tpy emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
- (9) The lb/hr emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
- (10)MSSFUG emission rates apply to all fuel firing scenarios.

Date:	September 23, 2013
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